U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV
POLLUTION REPORT No. 16

Holtra Chem Chlor-Alkili Facility
One Industrial Drive
Riegelwood, Columbus County, NC

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DATE: April 24, 2003

I. BACKGROUND

Site No.:	A47J
Delivery Order No.:	N/A
Response Authority:	CERCLA
Incident Category:	**State Referral**
CERCLIS:	NCD097361018
NPL:	N
Site Category:	Industrial Chlor-alkali Facility
Responsible party:	Holtra Chem LLC, Honeywell Inc.

II. HISTORY

Refer to Action Memorandum, Consent Order, and previous POLREPs for site history.

III. SITUATION

Refer to initial and routine POLREPs for site situation.

IV. SITE ACTIVITIES

This POLREP covers activities for two work weeks.

April 14 - 17, 2003

EPA was not present on site during the April 14 - 17, 2003 reporting period (work was also conducted by a skeleton crew on Friday, April 18, 2003). START personnel provided Responsible Party (RP) monitoring, site documentation, and on-site real-time air monitoring during this time. The weather was dry and temperatures ranged from the mid-50s to the mid-80s during the work week. Due to the elevated temperatures, START collected ambient air samples from five locations on two different days during the work week. URS reported that mercury was detected above action levels in the urine of five workers. These workers have been rotated off site, and additional corrective measures were initiated to further reduce potential exposures. These measures include: disallowing food consumption in the URS Prep Building; closer monitoring of PPE donning and doffing activities; supplemental fit testing for respirators; better management of mercury-contaminated debris; and mandating Level B PPE in the Mercury Cell Pit, and Level C PPE in all other exclusion zone areas, even if not warranted by air monitoring results. URS workers were also retested for mercury in blood and urine to confirm results. Supplemental on-site urine mercury testing will be conducted for workers at two week intervals. During the week, perimeter air monitoring readings for mercury on the west and north side of the Old Mercury Cell Building exceeded the action level for use of respiratory protection, and additional exclusion zones were established. Readings ranged from 0.004 to 0.39 mg/m3 in the Level C work areas and up to 0.882 mg/m3 in the Level B (Mercury Cell Pit) work area. Due to the higher temperatures, heat stress monitoring was also implemented. Five additional workers received 40-hour HAZWOPER training this week and will be prepared to start site work the following week.

In summary for the week, URS personnel completed preparations for mercury cell cover removal, decontamination, and disassembly within the Old Mercury Cell Building. Operations on Cell No. 13 were initiated on April 15, 2003 and will continue into next week. Although cell cover removal and disassembly are both labor intensive operations, disassembly has proved to be the rate-limiting step thus far. Cell covers are not being removed until all loose mercury in the bed has been recovered to minimize formation of mercury vapors in the work zone. Pipes that had been previously disconnected and staged within the Old Mercury Cell Building were decontaminated and removed from the area. Debris was shoveled from the floor and the area power washed on a daily basis. Construction of the Central Decontamination Pad (CDP) was nearly completed in the Cooling and Drying Area. Activities included removal of all remaining concrete and rebar, addition of a sand foundation, and partial installation of an HDPE liner. Waste-water pretreatment continues in the Brine MESS Area Primary Wastewater Treatment Plant (WWTP). Four batches of water were treated and released to the Raven Tanks for subsequent discharge. The filter press was also serviced this week. Water in the South Pond is now down to two feet. Pipes continued to be removed from the west side of the Bleach Plant. Bleach vat lids were removed and staged pending proper disposal. Bleach Plant concrete was determined to be non-hazardous based on generator knowledge, concrete test date from the Mercury Vault, and water test data from the Bleach Plant floor. Remaining brick from the

Mercury Still was removed and the Retort Sump was cleaned of mercury. Concrete was floated over the hole left in the Retort Pad where the still had been removed. Remaining staged debris on the Retort Pad was demolished and removed. This area is the future location of the Secondary Decontamination Area (SDA). The new Contamination Reduction Zone (CRZ) was completed on the south side of the exclusion zone and the north CRZ was removed. Elemental mercury continued to be transferred from holding tanks into DOT-approved, metric-ton shipping containers and mercury was shipped off site this week. Two new waste streams were identified. These include: non-hazardous scrap copper, and non-regulated material (NRM00). The NRM00 is non-hazardous material that exceeds a head-space reading of 0.05 mg/m3 mercury. This material can not be shipped to the North Carolina non-hazardous waste disposal facility due to contractual agreement, and will be shipped to the hazardous waste disposal facility in Emelle, Alabama, for direct land filling. In total, two 20-yard hazardous-macro boxes, two 25-yard hazardous-micro boxes, one 25-yard NRM00 box, and five 1-ton cylinders of mercury were transported off-site for recycling or disposal during the week.

The Administrative Record was completed, shipped, and received by the local repository on April 18, 2003.

April 21 - 24, 2003

OSC Carol Geraghty provided on-site oversight of removal activities from April 22 - 24, 2003. START provided RP monitoring, site documentation, and on-site real-time air monitoring during the entire reporting week. EPA OSC Charlie Fitzsimmons was on site April 22, 2003, to monitor RP performance and to attend the All-Hands Monthly Meeting. EPA RPM Samantha Urquhart-Foster was on site April 22 and 23, 2003, to conduct a site tour with the USFWS, attend the All-Hands Monthly Meeting, and conduct citizen interviews. EPA Community Relations Specialists (CRSs) Sherryl Carbonaro and Diane Barrett were on site April 22 - 24, 2003 to attend the All-Hands Monthly Meeting, conduct citizen interviews, and obtain additional data needed for completion of the Community Relations Plan (CRP). The weather was dry and temperatures ranged from the mid-40s to the mid- to upper 70s during the work week.

The All-Hands Monthly Meeting was held from 1:30 PM to 4:10 PM on April 22, 2003. Attendees included: EPA and their contractor, USFWS, NCDENR, International Paper (IP), and Honeywell and their contractors. The following key issues were addressed:

- Confirmed worker exposures to mercury, and the presence of mercury vapor in the CRZ and office areas, were discussed and additional corrective measures were agreed to be implemented. These included: adding additional boot washes/boot cover areas at all entrances to the facility; requiring worker showers and clothing changes at the end of the work day; rotating workers in the exclusion zone; providing better procedures for respirator care and face/hand washing; spot-checking worker vehicles for the presence of mercury vapor; and emphasis of proper hygiene/heat stress awareness during morning safety meetings. In addition, breaks will be mandated in the morning and afternoon, and breathing air cylinders will be tested to confirm oxygen content before each use.
- Issues relating to NRW00 were discussed. Honeywell is using the hazardous waste facility in Emelle, Alabama, for disposal of this non-regulated waste stream, but is trying

to identify a RCRA Subtitle D Landfill that will accept the waste and is also closer to the site.

- The project schedule was discussed. Work activities are currently six days behind the revised schedule of March 28, 2003. Additional project delays are anticipated due to mercury cell operations. A better projection of schedule impacts from this task can be developed after a couple more weeks of implementation. An additional scope element, transfer of Bleach Plant concrete to the rainwater ponds, will be added to the contract with URS.
- The status of the LDR Variance with ADEM was discussed. Honeywell's petition is next in line for formal review by ADEM. This process should begin in approximately two weeks. The most challenging component will be the "Miscellaneous" types of waste, including sludge/soil with high mercury content.
- Plans for conducting interviews with local citizens were discussed. Additional community contact names were provided to EPA. It was thought that a reason for the low level of concern was that most citizens had or continue to work for the neighboring IP facility. No public meetings are currently planned for the time-critical (TC) removal portion of the site clean-up.
- IP raised the issue of traffic control on the shared roads between their facility and Holtra Chem. Both IP and Honeywell trucking operations will significantly increase by next month and better coordination will be necessary.
- EPA RPM Urquhart-Foster announced that the EPA Remedial Program and Honeywell were currently discussing entering into an Administrative Order on Consent (AOC) for conducting an EE/CA and subsequent non-time-critical (NTC) removal action at the site in lieu of an RI/FS.
- The current version of the Field Sampling Plan (FSP) was discussed. Comments had been received from EPA and the state. The document contains more requirements than are necessary for the EPA Removal Program, but less than would be needed for the EPA Remedial Program. Concerns were raised on how to handle characterization of areas that would be potentially excavated as part of the current TC removal action, but would also need to be evaluated as part of the EE/CA. After a short internal EPA meeting, it was announced that the EPA Removal Program would tentatively agree to end the TC removal action at the facility decontamination/demolition phase and that the EPA Remedial Program would handle assessment and cleanup of all remaining areas of potential concern (including soil, sediment, and groundwater) as part of the EE/CA/NTC removal process. This would require an amendment to the current AOC and simultaneous signing of the EE/CA/NTC Removal AOC. Further discussion on this issue will be required.
- The request by Go Chemical, Inc., to set up a bleach processing operation at the Holtra Chem facility was discussed. EPA OSC Fitzsimmons indicated that operations would not be allowed during the TC removal action, and further coordination would need to be conducted with EPA RPM Urquhart-Foster regarding the schedule for the EE/CA/NTC removal action. The current demolition operation by ABC Construction on behalf of Kuehene Chemical were also discussed. Due to changes in site operations, increased temperatures, and increased potential for exposure, this on-going activity would be halted by EPA.
- Sample results for the Retort Pad were reviewed. During the week ending on March 21,

2003, Geosyntec attempted to collect samples from 54 locations at three depth intervals around the Retort Pad. Elemental mercury was encountered at 12 locations, including surface soils (0- to 0.5 inch depth interval) at nine locations on the north side of the pad. Samples were not collected at the locations where visible mercury was observed. Mercury contamination was generally observed in higher concentrations in surface versus subsurface soil samples, due to the presence of tight confining material throughout the area. In comparing the laboratory findings to field screening data obtained from the Lumex, results were generally consistent up to 10 mg/kg, but the Lumex under-predicted mercury levels at higher concentration ranges. The manufacturer has provided Honeywell with a device to modify the equipment to accommodate higher concentration samples. The previously collected samples had been archived and will be re-analyzed using the new procedures.

EPA OSC Fitzsimmons attempted to contact Kerry Oates of Go Chemical, Inc., to inform him of EPA's decision to not allow him to operate a bleach plant at the site during TC removal activities. A voice message was left for Mr. Oates, and the decision will be followed up in writing. EPA OSCs Fitzsimmons and Geraghty held conversations with Benny Sassar, Project Manager of ABC Construction, and Bob Holmes of Kuehene Chemical, regarding their on-site demolition operations. EPA informed them that their on-site activities would have to cease by the end of the week due to increased potential for mercury vapors to enter that area, and the presence of mercury contamination in surface soils around the Retort Pad which is near their work areas. No on-site work would be allowed after this work week.

Interviews with local citizens were completed by EPA this week. Very little interest or concern was expressed by the contacted individuals. A fact sheet was completed and will be mailed to local residents, community leaders, and other interested parties. A web-site was also published and will be used for posting site updates and information. The website address is: www.epaosc.org/lcp-holtrachem.

An incident occurred over the weekend when the discharge valve from the No. 3 waste water collection tank in the primary WWTP was found to be partially open. Water was flowing out of the open filter press, over the concrete berm, and into the South Pond through site drainage. The problem was compounded because a mill water hose had been left on and this water also flowed to the primary WWTP sump and out to drainage. An investigation was conducted and corrective measures, including enhanced training, were implemented to minimize any future reoccurrence.

Upon review of Honeywell's weekly progress report for the previous week's activities, EPA OSC Geraghty identified additional data errors and H & S concerns. OSC requested that Honeywell ensure that reported data is accurate, that hourly air monitoring is properly implemented when action levels are exceeded, note on the perimeter air monitoring logs when exclusion zones are changed, and include the CRZ and offices as official perimeter air monitoring locations.

Five new URS workers were on site this week, replacing those rotated off site due to the presence of mercury in their urine above action levels. Additional manpower has been requested by Honeywell. Site activities for the week include the following. URS continued mercury cell

cover removal, decontamination, and disassembly operations within the Old Mercury Cell Building. Disassembly of the covers for Cell nos. 13 and 14 were completed and operations on Cell No. 15 were initiated. The cell cover disassembly operations has been progressing more rapidly and is no longer the rate limiting step. Pipes that had been previously disconnected and staged within the Old Mercury Cell Building continued to be decontaminated and removed from the area. Debris continued to be shoveled from the floor and the area power washed on a daily basis to reduce development of mercury vapors. Final tasks for construction of the CDP in the Cooling and Drying Area were completed and included tacking down the HDPE liner. Waste-water pretreatment and filter press maintenance was continued in the Brine MESS Area Primary WWTP. A back-up filter press was installed and will only be used if the primary press breaks. Water in the South Pond has been actively pumped to the North Pond and full freeboard is available. Pipes and a stairwell continued to be removed from the Bleach Plant and Products Area. A large, tracked jack hammer was used to initiate demolition of the Bleach Plant concrete, starting with the south wall. Dust suppression and hearing protection have been implemented for this operation. The Retort Pad was pressure washed and the SDA established. The SDA construction included use of hay bales to form a berm, covering the pad with a HDPE liner, and using sand bags to secure the liner. A truck wash was initiated near the rail lines and adjacent to the Products Area for potential use if mercury contamination is identified on the trucks, or during muddy conditions. URS is still waiting on the DOT-approved shipping containers before any additional mercury can be transferred. The three on-site storage containers are full. In total, three 20-yard hazardous-macro boxes, one 25-yard hazardous-micro box, five 25-yard NRM00 boxes, and one 20,000 pound box of D009 waste were transported off-site for disposal during the week.

V. FUTURE ACTIVITIES

OSC Charlie Fitzsimmons will provide oversight during the April 28 - May 1, 2003 work week. EPA Joey Ingraldi is anticipated to be on-site to support development of the site files.

The next All-Hands Monthly Meeting has been scheduled for 12:30 PM, May 28, 2003.

Site work during the next week will include mercury cell-plate removal, disassembly, and decontamination, and mercury cell-bed cleaning operations. An acid bath is being added to the cell-bed and subsequently drained to the denuders to help loosen the mercury amalgam. Demolition of the Bleach Plant concrete will continue and should be completed by Wednesday. This material will be transported and staged in high flow areas just northwest of the North Pond. Piping will continue to be removed from the Products Area. The truck wash should be completed by Monday. Five 1-metric ton DOT-approved shipping containers should arrive at the site by early next week. A skeleton crew will be working on Friday, May 2, 2003 to patch the Old Mercury Cell Building floor with concrete and create additional supports for the building columns. Selected Honeywell and URS personnel will attend a refresher First Aid and CPR course on May 9, 2003.

START is preparing an addendum to the Air Sampling Plan and will prepare to conduct indoor air sampling in the Administrative Office Building and Prep Building to evaluate time-weighted concentrations of mercury vapors in those areas.

START shipped the rented Jerome Mercury Vapor Analyzer back to the manufacturer for internal maintenance and a replacement should be received by Monday. The START readings later this week have become suspect. The scrubbers and tubing on this equipment should be changed on a monthly basis with heavy use and the equipment has been on-site for approximately one month. Rotation of this equipment will continue to occur on a monthly basis. The Lumex instrument continues to perform well.

VI. DISPOSAL SUMMARY

Disposal Summary for Week of April 21 - 24, 2003			
Waste Stream	Disposal Destination	Quantity Shipped This Week	Quantity Shipped To Date
Hazardous - Micro	Waste Management - Emelle Treatment Facility Emelle, AL	(1) 25-yd box	(9) 25-yd boxes (2) 20-yd boxes
Non-Regulated* Material (Directly Land Filled)	Waste Management - Emelle Treatment Facility Emelle, AL	(5) 25-yd boxes	(6) 25-yd boxes
Hazardous - Macro (Including ACM Hazardous)	Waste Management - Emelle Treatment Facility Emelle, AL	(3) 20-yd box	(15) 20-yd boxes
D009 (Wastewater Filter Cake)	EQ - Michigan Disposal Waste Treatment Belleville, MI	(1) box (est. 20,000 lbs.)	(3) boxes (est. 66,840 lbs.)
ACM (Non-Haz)	Anson Waste Management Facility Polkton, NC	Task Complete	(3) 40-yd boxes
Non-Haz Construction Debris	Sampson Co. Disposal Facility Roseboro, NC	None	(7) 30-yd boxes
Non-Haz Scrap Metal	Southern Metals Recycling Wilmington, NC	None	99,186 lbs
Non-Haz Scrap Titanium	Southern Metals Recycling Wilmington, NC	None	None
Non-Haz Scrap* Copper	Southern Metals Recycling Wilmington, NC	None	None
Reclaimed Elemental Mercury (for Reuse)	Goldsmith Evanston, IL	None	(5) one-metric ton cylinders

* New waste streams added to this disposal summary.